R16-PCM

16 Channel Telemetry for railway wheels

Including signal conditioning for strain gages

User Manual – DEMO

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- Full- and half bridge
- Auto Zero Offset calibration
- 4V bridge Excitation
- 16 bit resolution
- Simultaneous sampling
- Sampling rate 16x 9500Hz
- Signal bandwidth: 16 x 0-3000Hz
- Software programmable
- Gain 125-250-500-1000-2000
- Inductive power transfer
- Wireless digital data transmission
- Output analog +/- 10V
- Digital data interface to PC (option)
- Waterproofed housing (IP65)

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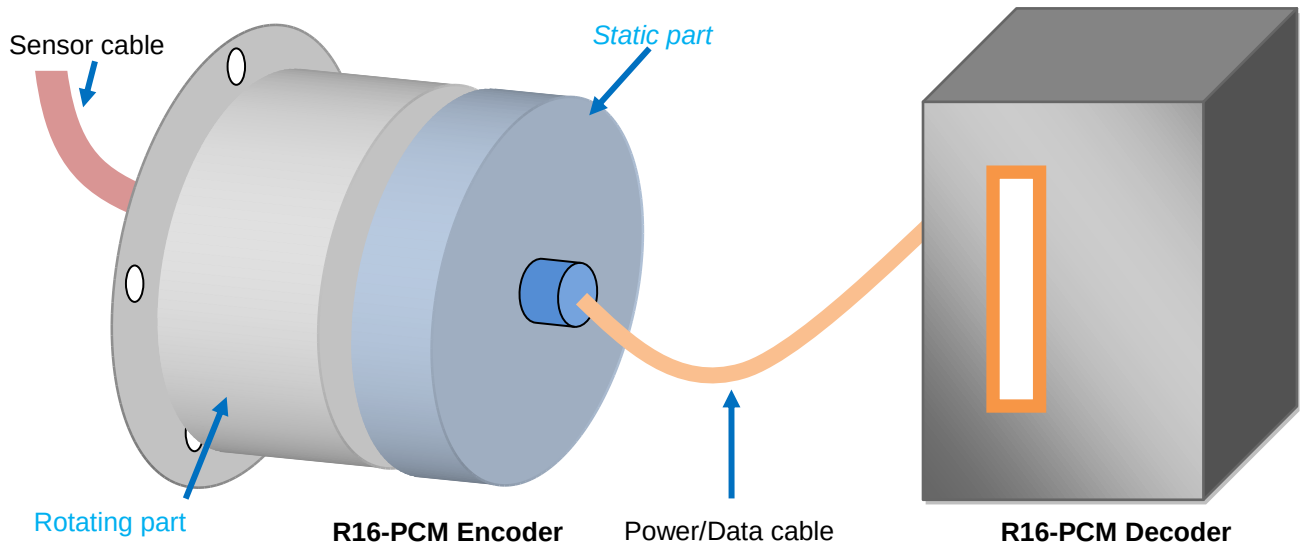
Internet: www.telemetry-world.com , E-Mail: info@telemetry-world.com

R16-PCM - Technical Data:

Encoder (Rotor Electronic)		Decoder	
Number of channels:	16	Number of channels:	16
Sensor support	Strain gages full and half bridge ≥ 120Ω	Analog Output	+/-10V via 37-Sub-D connector
Excitation	4V for all channels	Digital Output	PCM serial (optional PCM interface for PC)
Gain	125-250-500-1000-2000 **(selectable by software)**		
Offset calibration	Automatically (Auto Zero)		
Antialiasing filter	5-pole Butterworth and 2-stages digital down sampling filter		
Band width	3000 Hz per channel	Band width	3000 Hz per channel
Sampling rate	9500 Hz per channel		
Resolution	16 bit ADC	DAC (digital to analog converting)	16 bit
Powering	Inductive	Powering	10-30V, 25 Watt
Data transmission	PCM digital infrared link	Data receiving	PCM digital twisted pair
Operating temperatures	-20 … 80°C	Operating temperatures	-20 … 70°C
RPM	Max. 3000		
Dimensions	100 diameter 110 Lengths (mm)	Dimensions	205 x 105 x 120 (mm)
Weight	1.2 kg	Weight	2.5 kg
Housing protection type	IP65	Housing protection type	IP54
Housing material	Aluminum anodized	Housing material	Aluminum anodized
Humidity	20…100%	Humidity	20 ... 80% (not condensing)
Shock	1000g	Shock	100g
Vibration	+/- 10g	Vibration	5g
Power/Data cable	Length up to 50m, 10m is standard (between Encoder /Decoder)	System accuracy	±0.25% (without sensor)



Settings

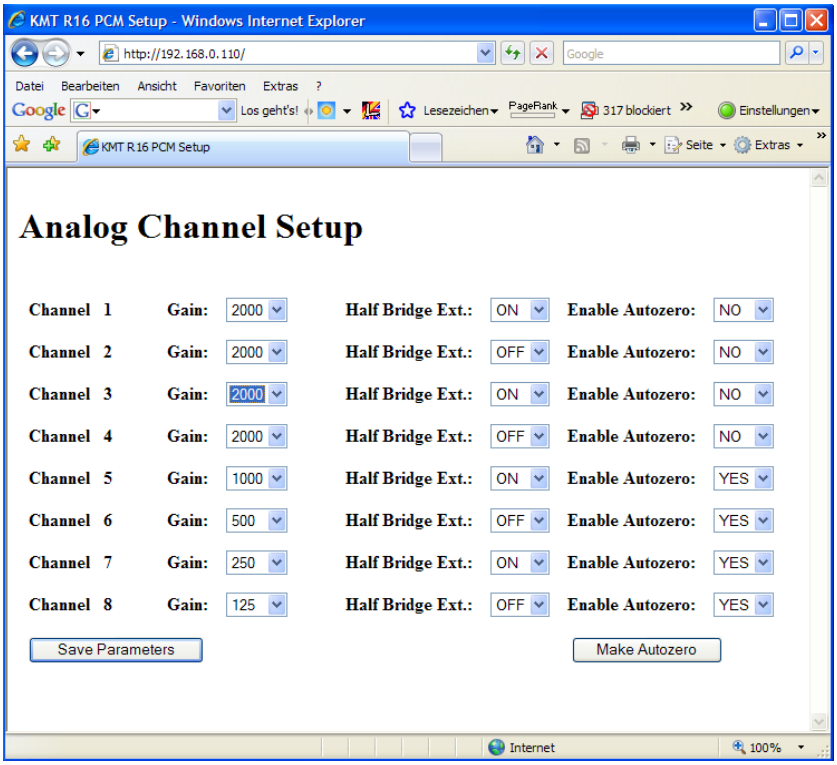
Web interface address:
IP 192.168.0.110

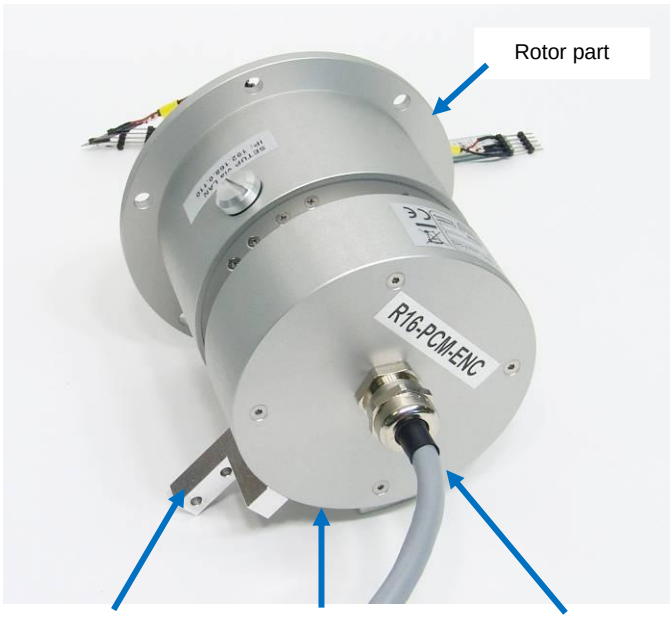
Settings:

Gain 125-250-500-1000-2000
Half- and full bridge
Auto Zero YES/NO

Programming connector

Programmable via web interface

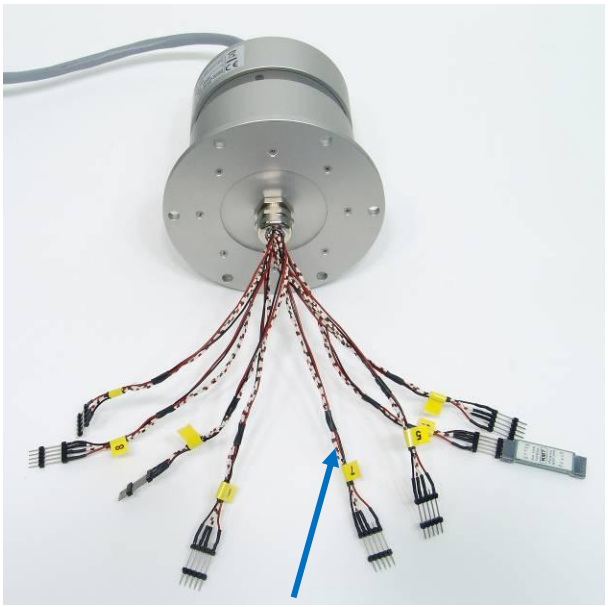




Stator arm for fixing

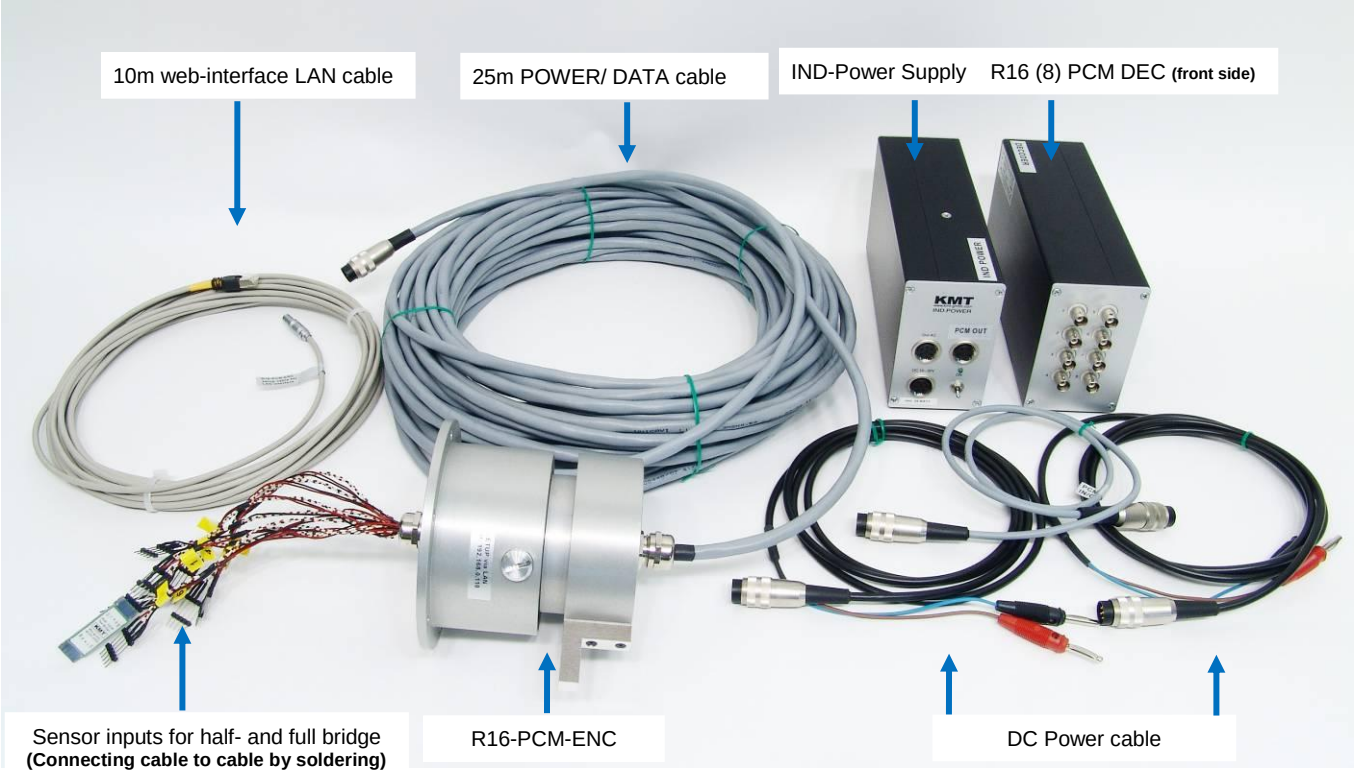
Stator part

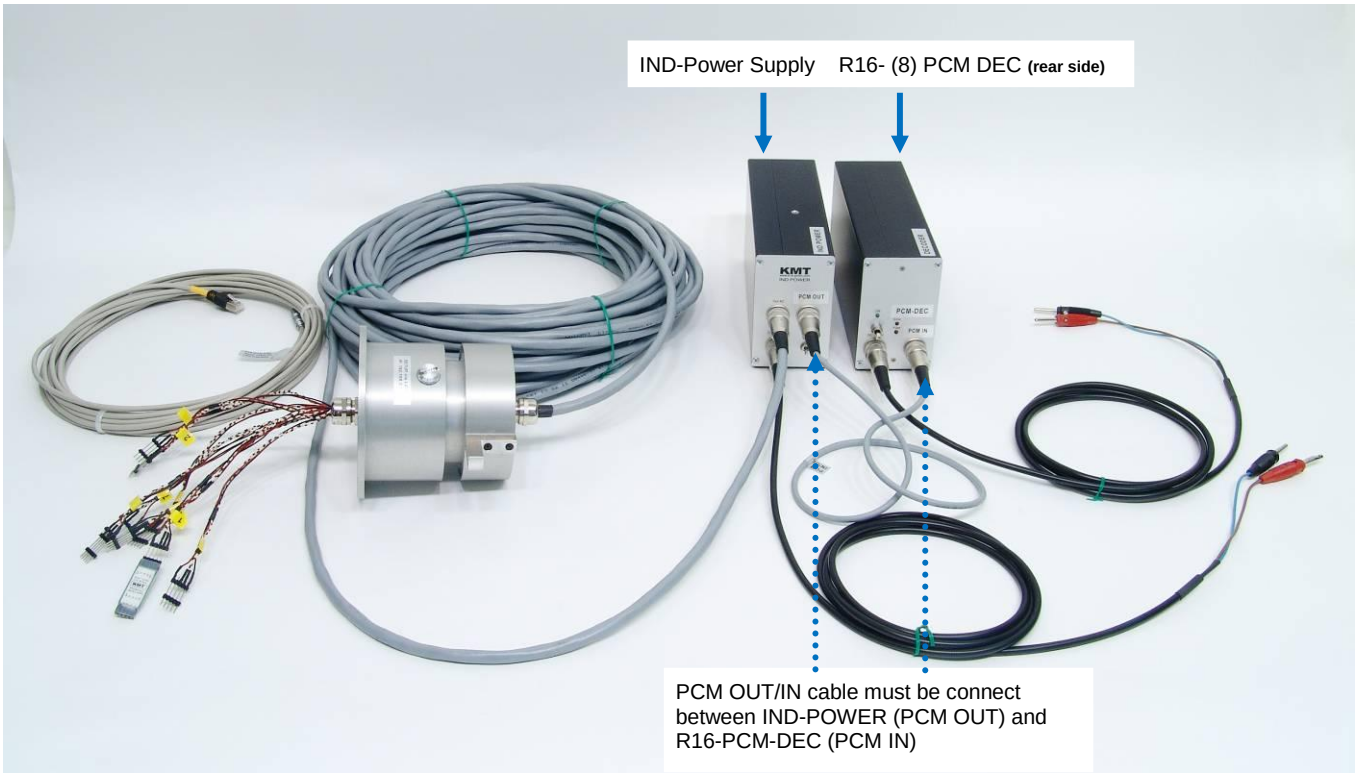
Data / Power cable OUT



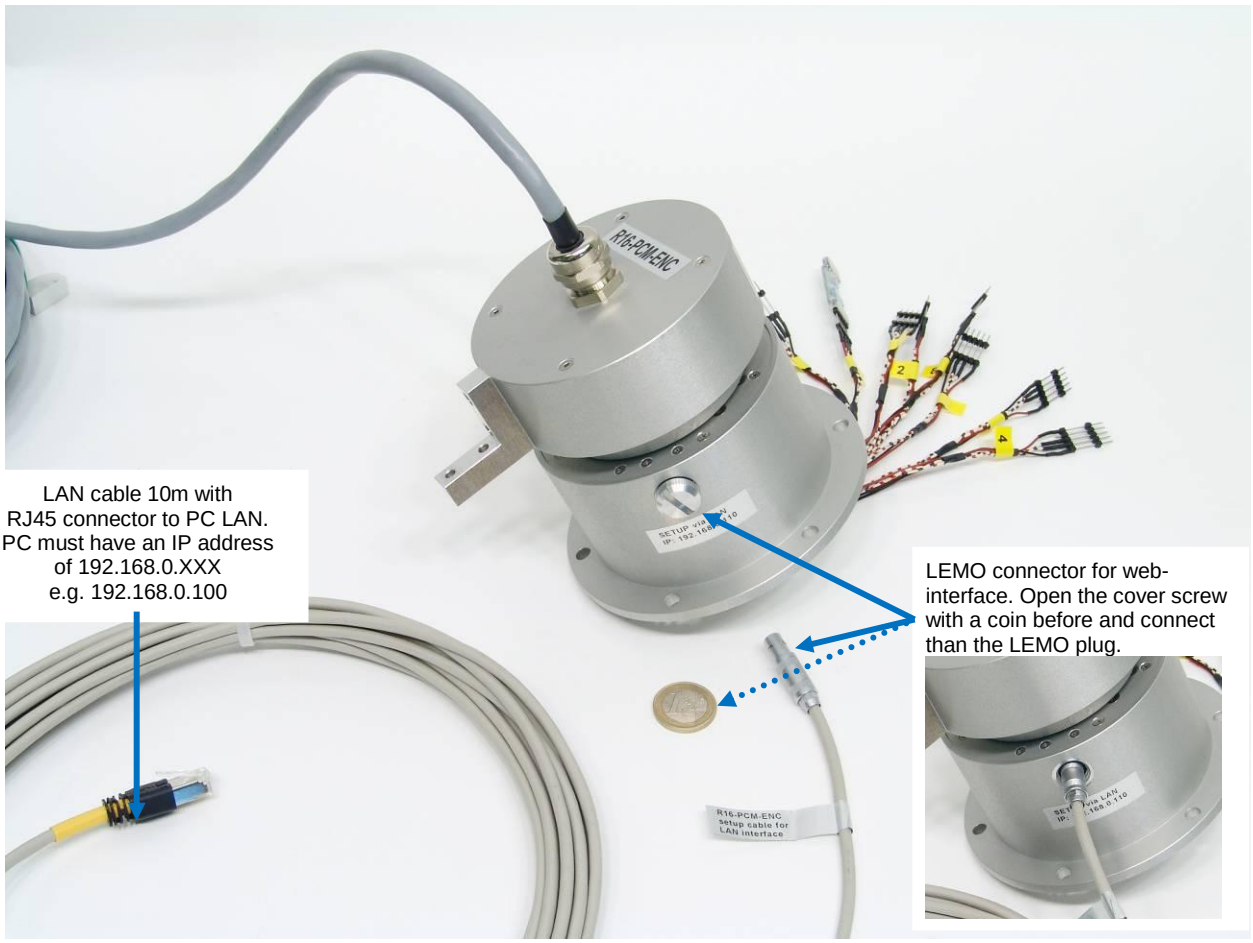
Sensor cable IN
(e.g. shows a 8 CH. version

SET and cable connection of R16-PCM-ENC

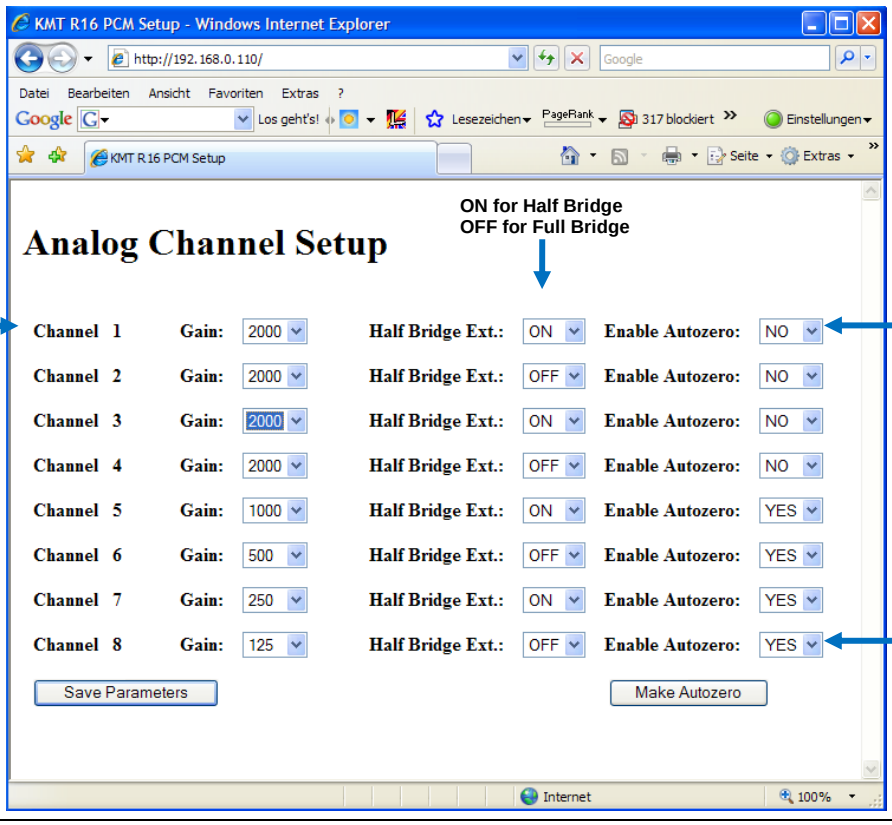




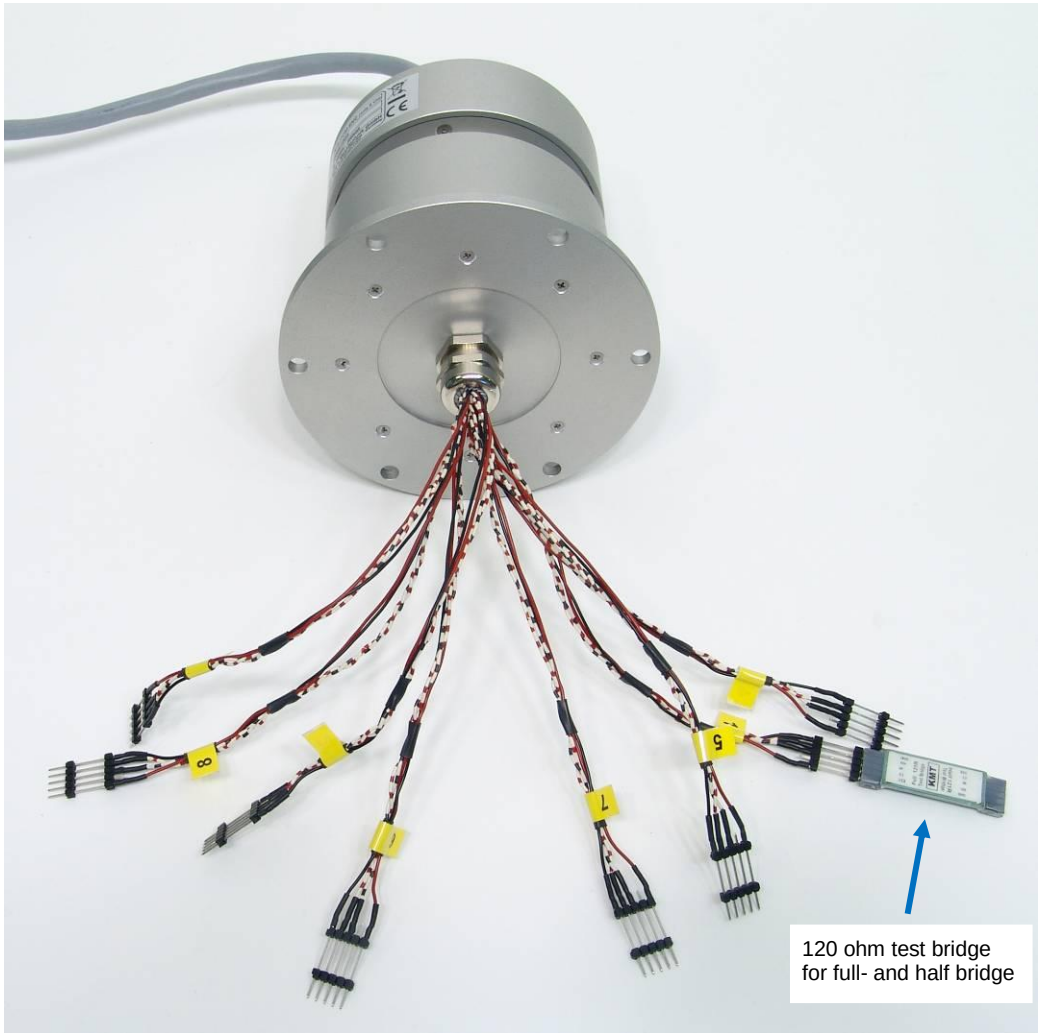
Settings of R16-PCM-ENC
Programmable via web interface



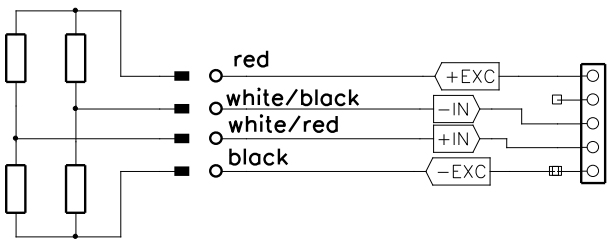
Web interface address of R16-PCM-ENC = IP 192.168.0.110



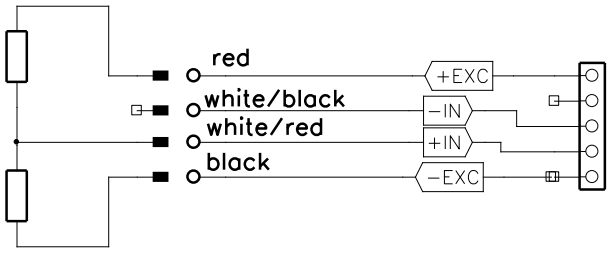
Pin sensor connection of R16-PCM-ENC



Sensor cable input (e.g. shows a 8 CH. version)



Full bridge



Half bridge

Dimensions of R16-PCM-ENC